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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,697	04/05/2006	Jiro Kishimoto	AIA-115-PCT	3729

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EXAMINER
KOSAR, AARON J

ART UNIT	PAPER NUMBER
1651	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,697	KISHIMOTO ET AL.	
	Examiner	Art Unit	
	Aaron J. Kosar	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) *1-10 and 17-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/6/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election **without** traverse of group III, claims 11-16 in the reply filed on November 8, 2007 is acknowledged.

Claims 1-36 are pending. Claims 1-10 and 17-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim.

Claims 11-16 have been examined on their merits.

Information Disclosure Statement

The information disclosure statement filed April 6, 2007 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of reference listed that is not in the English language. The References of EHAMA, KISHIMOTO (2002 and 2003), INAMATSU, and TACHINO, were cited in the International Search Report (ISR); however, English-language equivalents of the documents have not been provided with the instant Application. The IDS has been placed in the application file, but the information referred to therein has only been considered to the extent presented in the English language abstracts, text, and figures, to the extent presented in the instant specification, or to the extent cited by the Examiner and separately listed on a PTO-892 form. References have been annotated to indicate the extent considered or not considered, the latter of which have been indicated as lined-through on the IDS (PTO-1449).

The reference of EHAMA listed in the IDS, has been considered to the extent of the English language title only; however, since the title in the IDS is phonetically/literally translated title, the reference has been lined-through on the IDS and the corrected citation showing the corresponding English language title has been listed on the PTO-892 (EHAMA, Ritsuko, et al., "Reconstitution of chimeric hair follicle from human-derived cells" The Molecular Biology Society of Japan Nenkai, November 2003, vol 26, frame 2PC-024, page 764 (English title only.).

Claim Objections

Claim 12 is objected to because of the following informalities: The phrase "the number of the hair dermal papilla cell" appears to be a typographical error of the phrase "the number of hair dermal papilla cells". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-16 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well-established utility.

The MPEP states that the following categories are not substantial utilities: (A) Basic research such as studying the properties of the claimed product itself or the mechanisms in which the material is involved; (B) A method of treating an unspecified disease or condition; (C) A method of assaying for or identifying a material that itself has no specific and/or substantial utility; (D) A method of making a material that itself has no specific, substantial, and credible utility; and (E) A claim to an intermediate product for use in making a final product that has no specific, substantial and credible utility. MPEP § 2107.01(I).

Further, with regards to research tools, the MPEP states, "An assessment that focuses on whether an invention is useful only in a research setting thus does not address whether the invention is in fact "useful" in a patent sense. Instead, Office personnel must distinguish between inventions that have a specifically identified substantial utility and inventions whose asserted utility requires further research to identify or reasonably confirm. Labels such as "research tool," "intermediate" or "for research purposes" are not helpful in determining if an applicant has identified a specific and substantial utility for the invention." MPEP § 2107.01(I).

The instant claims are asserted to be hair follicle-regenerating compositions; however, the art recognizes no specific or substantial utility for the compound(s) of the invention. For example, CHUONG (Chuong, C-M, Costarelis, G., Stenn, K. "Defining Hair Follicles in the Age of Stem Cell Bioengineering", Journal of Investigative Dermatology. 2007, 127, 2098-2100.), teaches that the complex organ of a follicle is greater than a keratin shaft, but includes an array of spatially arranged specialized tissues and periodicity of hair cycles (Chuong, for example table 1). Chuong also teaches that the putative follicle reported by EHAMA (Ehama, R. et al. "Hair follicle Regeneration Using Grafted Rodent and human Cells" Journal of Investigative Dermatology. 2007, 127, 2106-2115.) is not a true follicle but an approximation of a keratin plug-growing mimic thereof. Chuong summarizes these differences/deficiencies by stating:

> *The reconstituted hair follicles using homospecific mouse or rat cells clearly generate normal-appearing hairs. Heterospecific mouse–rat combinations are also good. Homospecific human cells did not work in Ehama and colleagues' experiments, but human–mouse combinations gave results that formed the basis of the current report. The authors reported that epidermal invaginations from the reformed epidermis occur. A cluster of dermal condensation cells was located adjacent to the follicle but was not engulfed by the follicle base. It was alkaline-phosphatase-positive, but versican-negative. Whether it can be considered a bona fide DP is debatable, but the structure was distinct from the surrounding cells and appeared closer to DP than other tissues. Proliferating cells were distributed in the basal epidermal layer but not localized to the matrix region. There were no K15-positive bulge*

cells, nor did they demonstrate the presence of stem cells by any other methods (Cotsarelis, 2006). The topologic arrangement of stem, TA, and differentiated cells seen in normal hair follicles did not appear to form. Follicular epidermal cells were layered, but the distinct differentiation of medullar, cortex, and inner and outer root sheath was unclear. The poorly formed hair shaft–like structure is better described as a keratin plug than as a hair shaft. None of the structures had associated sebaceous glands. As for biochemical differentiation, hair keratin Hb1 and AE 13 were weakly positive, and transglutaminase 1 was not found. The authors did not demonstrate cycling behavior of the hair follicle–like structures either, which is why the newly formed structures can only be called "hair follicle–like." Although they did not achieve the engineering of a "real" human hair follicle, the article demonstrates work in progress toward this goal. ((emphasis added) Chuong, page 2098, ¶ 2 and portion spanning page 2099)

The art of Ehama shows the differentiation of cells and select activities of the product composition(s); however, as argued by Chuong (supra), the composition does not replicate a follicle *per se*. While potentially useful in a research setting, and of scientific importance particularly in peer reviewed journals, the composition is still a "work in progress" towards a desired follicle-regenerating composition and thus in addition to the differences/deficiencies above necessarily lacks a well-established *or* a specific and substantial utility.

Claim Rejections - 35 USC § 112, 1st ¶

The following is a quotation of the first paragraph of 35 U.S.C. 112:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-16 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility *or* a well established utility for the reasons set forth above, to the extent the claims are drawn to a follicle-regenerating composition one skilled in the art clearly would not know how to use the claimed invention.

Claims 11-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The factors to be considered in determining whether a disclosure meets the enablement requirements of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir., 1988). The court in Wands states, "Enablement is not precluded by the necessity for some experimentation, such as routine screening. However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue', not 'experimentation'" (Wands, 8 USPQ2sd 1404). Clearly, enablement of a claimed invention cannot be predicated on the basis of quantity of experimentation required to make or use the invention. "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations" (Wands, 8 USPQ2d 1404). Among these factors are: (1) the nature of the invention; (2) the breadth of the claims; (3) the state of the prior art; (4) the predictability or unpredictability of the art; (5) the relative skill of those in the art; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

While all of these factors are considered, a sufficient amount for a *prima facie* case is discussed below.

(1) The nature of the invention and (2) the breadth of the claims:

The claims are generally drawn to a hair follicle-regenerating composition using cells from any organismal (or combination of organisms) origin with the proviso that the hair follicles and/or epithelia is derived from such organism(s). The specification and examples teach cellular structures which produce a partial approximation of the behavior of a hair follicle-like structure with specific mammalian cell combinations (e.g. human/murine, mouse/rat, mouse/mouse, etc.). Thus, the claims taken together with the specification imply a broader breadth than what is supported by the specification.

(3) The state of the prior art and (4) the predictability or unpredictability of the art:

The state of the art is such that follicle regeneration is unresolved.

INAMATSU (US 5851831 A) teaches that cell proliferation, differentiation of dermal-epidermal cells in contact, and maintenance of dermal papilla cell function in epidermal-dermal papilla compositions is known. Inamatsu teaches that "culturing dermal papilla cells with at least either of the mammalian epidermal cells from the sole or other portions of a mammal and the conditioned medium thereof, *in order to permit long stable subculture of dermal papilla cells* while keeping the original function thereof intact." (Abstract, emphasis added). Inamatsu also teaches that "it has been conventionally known that..interactions between the follicle epidermis and the underlying papillae result in the differentiation and proliferation of hair matrix cells, thereby causing the hair shaft (so-called hair body) to grow."(column 1, ¶1).

STENN (Stenn, K.S., et al. "Phylogeny of the Hair Follicle: The Sebogenic Hypothesis", Journal of Investigative Dermatology, 2008, volume 128, pages 1-3 (published online 13 December 2007).) teaches that "hair follicles are not formed nor do they function, normally in the absence of a sebaceous gland" (page 1, ¶1).

Furthermore, CHUONG (Chuong, C-M, Costarelis, G., Stenn, K. "Defining Hair Follicles in the Age of Stem Cell Bioengineering", Journal of Investigative Dermatology. 2007, 127, 2098-2100.), teaches that the complex organ of a follicle is greater than a keratinaceous shaft and that the organ includes an array of spatially arranged specialized tissues and periodicity of hair cycles (pages 2098-2099; table 1). Chuong also teaches that the art is unpredictable, because the myriad of sources of epidermal cells may provide "different competences" (page 2100), and because "homospecific human cells did not work"(page 2098 in reference to the composition of Ehama, see below). Also, Chuong teaches that the putative follicle reported by

EHAMA (Ehama, R. et al. "Hair follicle Regeneration Using Grafted Rodent and human Cells" Journal of Investigative Dermatology. 2007, 127, 2106-2115.) is not a true follicle but an approximation of a keratin plug-growing mimic thereof. Chuong also summarizes these differences/deficiencies by stating:

> *The reconstituted hair follicles using homospecific mouse or rat cells clearly generate normal-appearing hairs. Heterospecific mouse–rat combinations are also good. Homospecific human cells did not work in Ehama and colleagues' experiments, but human–mouse combinations gave results that formed the basis of the current report. The authors reported that epidermal invaginations from the reformed epidermis occur. A cluster of dermal condensation cells was located adjacent to the follicle but was not engulfed by the follicle base. It was alkaline-phosphatase-positive, but versican-negative. Whether it can be considered a bona fide DP is debatable, but the structure was distinct from the surrounding cells and appeared closer to DP than other tissues. Proliferating cells were distributed in the basal epidermal layer but not localized to the matrix region. There were no K15-positive bulge cells, nor did they demonstrate the presence of stem cells by any other methods (Cotsarelis, 2006). The topologic arrangement of stem, TA, and differentiated cells seen in normal hair follicles did not appear to form. Follicular epidermal cells were layered, but the distinct differentiation of medullar, cortex, and inner and outer root sheath was unclear. The poorly formed hair shaft–like structure is better described as a keratin plug than as a hair shaft. None of the structures had associated sebaceous glands. As for biochemical differentiation, hair keratin Hb1 and AE 13 were weakly positive, and transglutaminase 1 was not found. The authors did not demonstrate cycling behavior of the hair follicle–like structures either, which is why the newly formed structures can only be called "hair follicle–like." Although they did not achieve the engineering of a "real" human hair follicle, the article demonstrates work in progress toward this goal.* ((emphasis added) Chuong, page 2098, ¶ 2 and portion spanning page 2099)

The art of Ehama shows the differentiation of cells and select activities of the product composition(s); however, as argued by Chuong (supra), the composition does not replicate a follicle *per se*.

While potentially useful and/or of interest in a research setting, and of scientific importance particularly in peer reviewed journals, the instantly claimed composition is still taught by Chuong to be a "work in progress" towards a desired follicle-regenerating composition and thus in addition to the differences/deficiencies above necessarily lacks a well-established *or*

a specific and substantial utility.

Since the determination of an art-recognized regenerated follicle remains largely unsolved, means for producing a composition useful in regenerating a follicle is highly unpredictable.

(5) The relative skill of those in the art:

The relative skill of those in the art is high; however, with respect to producing a follicle *per se* or producing a composition which is capable of producing a follicle in all instances is beyond the purview of the skilled artisan.

(6) The amount of direction or guidance presented and (7) the presence or absence of working examples:

The specification has provided examples of cell compositions, including those from Human/murine, mouse/mouse, mouse/rat, etc. However, the specification does not provide human/human compositions *and* in view of Chuong above, no guidance or working examples of compositions producing a bona fide follicle are presented.

(8) The quantity of experimentation necessary:

Considering the state of the art as discussed by Chuong and Ehama and the high unpredictability and the lack of guidance provided in the specification, one of ordinary skill in the art would be burdened with undue experimentation to make and use the invention.

It is the Examiner's position that one skilled in the art could not practice the invention or practice the invention without undue experimentation.

Claim Rejections - 35 USC § 112, 2nd ¶

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite, because, the recitations and correlations of the terms "epidermis", "epidermal cells", "epidermal tissue", and "follicular epidermal cells" in claim 11 are unclear. The claims are generally drawn to a composition comprising:

(a) a hair dermal papilla cell preparation and
(b) epidermal cells;

however, the claims are also drawn to the composition comprising components (a) and (b) wherein the composition comprises a component from which the epidermal component (b) has been removed from skin (an component (a+b)-containing composition) and the remaining dermal component (a) treated with collagenase to produce a dermal *and* epidermal composition (a+b) in 1:10 to 10:1 ratios.

Additionally, it is unclear if the ratio of hair dermal papilla:epidermal cells is further limiting of the skin tissue *or* the treated/cryopreserved composition and it is also unclear if the epidermal cells contributing to the ratio involve the total of all epidermal cells (i.e. those cells removed from the skin, the fraction of follicular epidermal cells, an added fraction of epidermal cells, and/or an epidermal cell combination thereof).

Furthermore, it is unclear if the claimed term "the follicular epidermal cells" is the same cells as the claimed terms "epidermal cells" or "epidermal tissue" or if it is a discrete entity/component.

Since the terms identified above and the associations thereof are unclear, since each interpretation is a reasonable interpretation of the claims, and because each interpretation defines distinct subject matter and inventions, one of skill would not be able to determine the compositions embraced by the claims. As such one would also not be apprised of the metes and bounds of the claims, rendering the claims indefinite.

Please note, wherein a composition is further drawn to method steps which may provide structure to the claimed composition, the claims should include enough information to clearly and accurately describe the invention. The minimum requirements for method steps minimally include a *contacting/reacting step* in which the reagents and reactions of the reagents are recited and a *correlation/concluding step* describing the results of the reaction and how the results allow for the final product. In these claims, the claims teach component (b) and the preparation of component (a) from an (a+b) skin composition which satisfy the contacting/reacting step; however, in the instant case, the concluding step (e.g. an active step of mixing the epidermal-removed, collagenase-treated dermal suspension with epidermal cells or follicular epidermal cells) is absent.

In view of the above argument, however, this ground of rejection may be overcome, for example, by amending the claims by clearly associating the species of hair, dermal, and epidermal tissues and cells recited; by reciting the missing method step(s) describing the

manipulations of the composition; and by correlating the cell ratios to the appropriate dermal:epidermal composition recited within the claims.

Claims 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the cell suspension" in line 6. There is insufficient antecedent basis for this limitation in the claim, because the claim recites providing a cell suspension by...treating the cell suspension", but does not recite producing a cell suspension from the dermal tissue fraction. Thus one would not be apprised as to the compositions embraced by the claims, rendering the claims indefinite.

Please note, however, that this ground of rejection may be overcome, for example, by amending the phrase "by providing a cell suspension by removing..collagenase treatment" to recite "by removing..collagenase treatment thereby providing a cell suspension".

Claim 11 also recites the limitation "the follicular epidermal cells". There is insufficient antecedent basis for this limitation in the claim, because the claim preceding said limitation does not recite a follicular epidermal cell (emphasis on each term "a","follicular", and "epidermal"(versus dermal) cell suspension). Thus one would not be apprised as to the compositions embraced by the claims, rendering the claims indefinite.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 12 recites the broad recitation "about 1:1", and since the term "about" is a term of degree (a dynamic term, analogous in structure to the term "comprising") which is not further defined by the specification, "about 1:1" may reasonably be interpreted to include a broad range of dermal papilla cell:epidermal cell ratios; however, the claim also recites the narrower range of "from 1:10 to 10:1" which is a narrower statement (a static term, , analogous in structure to the term "consisting") of the range/limitation of "about 1:1". As noted supra, by the claim 12 depending upon the ranges of both about 1:1 *and/or* from 1:10 to 10:1, it is unclear if about 1:1 is exemplified by the static

range (form 1:10 to 10:1) or if the static range is required by the claim. One of skill would not be apprised as to the metes and bounds of the claims, rendering the claims indefinite.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "/ml" in claim 13 is a relative term which renders the claim indefinite. The density term "/ml" is a unit of measure that requires a description of the numerator (e.g. g, cells, dural papillar cells, etc.); the denominator (ml); and the temperature at which the density measurement is taken, especially in view of the claimed limitation of cryopreservation as "carried out at -80°C or less" which thus allows also for adjusting the cell density at sub-ambient temperatures. Please note, the claims are not limited to aqueous suspensions and thus are variable in volume depending upon the density of the solvent and limited only by the phase transition to the solid phase and also includes the range of pre-cryogenic temperatures > -80°C. Appropriate correction is required.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron J. Kosar whose telephone number is (571) 270-3054. The examiner can normally be reached on Monday-Thursday, 7:30AM-5:00PM, ALT. Friday,EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aaron Kosar
Examiner, Art Unit 1651

SANDRA E. SAUCIER
PRIMARY EXAMINER